

Who Got the Money?

The Airplane Production Mess

In the Spring of 1917 America set out to "win the war in the air." At the time of the armistice not a single American-made fighting plane had reached the front. Yet a billion dollars' worth of government funds had gone into our aviation program. What became of it?

(Continued from last week)
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 * EDDIE
 * RICKENBACKER
 * SAYS:
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On the 22d of August, 1918, in Clermont, France, about 16 men (American aviators) were lined up that had been ordered to the front. I think there were about four or six DH-4 machines, and the rest were French machines. * * * They shook hands with everybody and said: "Well, this is not a revolt; this is good."

Captain Williams, (in charge of the aviation group) and I were standing opposite, and I asked them why all this gloom. * * *

"Well," he said, "those American machines have no protection. As soon as a bullet hits that gasoline tank it is certain it will take fire immediately, and the men—the pilot and observer—have no chance to get away."

He said the boys called those "flaming coffins." He said they would not come back; that when one of the machines was struck that was the finish. The French machines were old and not up to date. They were not as fast as the German machines, therefore, they did not figure that they had any chance in these machines, either.

I saw Captain Williams about a month afterwards and asked him particularly if those fellows came back. He said he had never heard of any of them. He said they had fallen inside the German lines and had been captured or killed. (Testimony of Capt. Thomas A. Sweeney, U. S. Engineers, before Graham Committee of the House of Representatives.)

When the United States entered the war our gratified Allies, after a careful survey of the situation, suggested that America's most telling contribution to the war could be made in the air. It was pointed out that to a far greater extent than in any other mode of warfare, air fighting on a decisive scale is dependent on the support of a tremendous industrial organization for the production of planes and equipment. Three years of war had taken European industry to the breaking point. If Allied air power was to grow, in fact it was to hold its own, America was requested as the only hope. America was coming into the war destitute of armies, but with some of the most highly specialized industrial organizations in the world. On this the Allies pinned their hope.

The logic of the situation was inescapable. The Allied suggestion was accepted and it was tentatively announced at Washington that America intended to "win the war in the air." Could we do it? Ask us something hard. Didn't America invent the airplane. This was the brand of argument used to floor those who were so disposed as to doubt. China, or, course, invented gunpowder, but—

This argument to have been just one of the thoughts that came out second best in the season collision with the spirit of magnificent coarseness in which America started to "win the war in the air." Came the first syllable of that magnificent cry, "mobilization of industry." Industry said it was ready. The head of the National Automobile Chamber of Commerce declared the country's automobile plants could turn out 30,000 cars in a year. One hundred and ten automobile manufacturers wired President Wilson their plants were "at the disposal of the government." It was asserted that industry had "answered the call with unbroken resolve." That it was "definitely known" that 3,500 planes a month could be produced. Low costs were stressed. In brief all we had to do was to rub the cup of "business efficiency" and win the war.

It was announced that the United States would put an armada of 25,000 planes in the air. Brig. General William Mitchell of the Air Service has since disclosed that War De-

partment plans called for 20,000 planes on the front and in reserve by January, 1918. There were to be bombing and fighting planes in numbers unheard of. The Germans were to be driven from the sky. The public was to be repeated, "it was only a question of money. The public had faith. The treasury showered the people's money down on these industrial captains as if it were manna. They spent it as if it were water. They spent \$1,051,511,988.

What did this sum contribute toward the winning of the war? Here is the record attested by General Pershing: Not one battle plane, not one bombing plane, not one pursuit plane, not one American-made fighting plane of any character ever reached the front.

From the appalling disgrace which clocks our air service record there must be exempted entirely the spasm of the fighting force. No breath of scandal touches our fliers. They went out and flew those "flaming coffins" those cast-off wrecks we beggars have no protection. As exhausted Allies, and performed feats of heroism that will live as long as this nation does. They soared to their death like men, fearless young martyrs to the graft, the waste and blundering that was at the heart of the industrial captains at home. Our losses among aviators were frightful. They were proportionately three times as great as the losses among Allied fliers. The reason is the death traps our men were forced to fly.

"Many a gallant life was lost to American aviation," Eddie Rickenbacker told a senate investigating committee. "The responsibility for which must lie heavy on some gully conscience."

Let us take a quick glance at the composition of the business administration of our air effort. A roster of the executive heads of the production organization reads like a selection from the Bible or the Koran. It is a list of names, in comparative subordinate positions, we find conspicuous figures in the world of industry. But at the top, at the pinnacle of the pyramid, controlling it all, was a man, a man who, when we do find him, the greatest industrial giant of them all? Scarcely. We find the chief signal officer of the army, Brigadier General G. O. Squier, concerning whom Chas. E. Hughes, in his investigation, made request of President Wilson, reports: "It is quite clear that the understanding of the Chief Signal Officer, who had neither training nor experience for such a large industrial enterprise, and those who were brought to task in this department failed to produce an organization which was adapted to the exigencies."

Under General Squier there was created in May 1917, the Aircraft Production Board, headed by Howard E. Coffin, automobile manufacturer of Detroit, and Edward A. Deeds, capitalist and cash register magnate of Dayton, Ohio. Deeds was commissioned a colonel and presently took charge of the production, which responsibility he held under various titles until relieved in February, 1918, by William C. Foster of the Guaymas copper interests. Col. Robert L. Montgomery, a stockbroker, handled matters of finance and supply, and Lieut. Col. Geo. W. Mixer, agricultural implement manufacturer of Moline, Ill., was in charge of the inspection department. In May 1918, John D. Ryan, financier and copper king, succeeded Foster.

As a climax to what Mr. Hughes calls "a series of misleading public statements made with official sanction" it was announced in the name of the secretary of war that up to the armistice this organization produced 11,754 planes. A brief analysis of the secretary's figures will sized some sidelights on the production results.

In June 1917, we started to produce 25,000 planes. Six hundred million dollars was appropriated for that purpose. Secretary Baker's figures admit that not 25,000, but 11,754 were produced, and not at an of \$600,000,000, but nearly twice that. This is admission of failure to no inconsiderable degree, but represents the rosier colors in which the situation could be painted.

(Continued next week)

THE LIHUE STORE'S LINES OF HOLIDAY GOODS

Now on Display are More Extensive and Better Assorted This Season Than Ever Before

Remembrances for Young AND GOOD THINGS TO EAT

Toys, Dolls and Holiday Specialties

Undressed Dolls, Jointed Dolls, Character Dolls, Bisque Dolls, Dressed Dolls, Juvenile Books, Painting and Drawing Books, History Books, Travel Books, Fiction Books, Games, Dominoes and Blocks, Checkers, Metal Construction and Wood Toys, Tinker Toys, Iron and Steel Toys, Kitchen Toys, Musical Toys, Savings Banks, Marbles, Tops, Horns, Harmonicas, Drums, Pop Guns, Air Rifles, Drawing Slates, Paints, Balls, Tree Decorations, Tree Ornaments, Trees, Collapsible Rattles and Toys, Rubber Toys, Children's Chairs and Rockers, Automobiles, Velocipedes, Hand Cars, Kidie Cars, Barrows, Carts, Wagons, Rocking Toys, Paperettes, Albums, Pencil Sets, Decorated Christmas Paper, Tags, Cards, Seals, Labels, Christmas and New Year's Greeting Cards and Folders, Christmas Tree Candles, Paper Garlands, Tinsel, Bells, Artificial Snow, Toy Pistols, Shoo Flys, Soap Blowers, Teddy Bears, Santa Claus Masks, Telephones, Pistol Holsters and Belts, Choo-Choo Cars, Jump Ropes, Toy Brooms, Baby Swings, Go-Carts, Bicycles, Garden Tools, Sand Pails and Shovels, Tool Chests, Iron and Steel Trains, Roller Skates, Etc., Etc.

Specialties in Grocery Department

Burham's Clam Bouillon, Libby's Bouillon Cubes, Whole Clams, Mince Clams, Clam Chowder, Cream Cheese, Edam Cheese, Chili Cheese, Swiss Cheese, Limburger Cheese, Macaroni Cheese, Jack Cheese, Grated Cheese, Kelly's Mango Chutney, Dux-Sen Chutney, American Biscuit Co.'s Crackers and Cakes, Arnold's Cakes and Cookies, Marshmallow Cream, Anchovies, Anchovy Paste, Caviar, Fish Flakes, Luncheon Haddies, Kipper Herring, Carlo Herring, Beardsley's Boneless Herring, Rick's Mackerel, Red Alaska Salmon, Findon Haddock, Kipper Snacks, Imported Sardines, Smoked and in Oil, Sardines in Tomato Sauce, Sardine Paste, Rubidoux Tuna, Fancy Blue Flag Crabs, Red Jacket and Sea Crest Lobsters, Blue Point, Maryland and Parrot Oysters, Dumbo and Boiled Shrimps, Canned Apples, Blackberries, Cherries, Fruit Salad, Grapes, Logansberries, Peaches, Pears, Pineapples, Raspberries, Strawberries, Dried Apples, Apricots, Currants, Dates, Figs, Peaches, Prunes, Raisins, Rosario Marmalade, IXL Jams, Jellies and Blackberry Jam; Pauls Apricot, Peach, Loganberry, Strawberry and Raspberry Jam; "Phex" Blackberry, Peach and Plum Jam; Assorted Jellies; Maraschino Cherries; Underwood's Deviled Chicken and Ham; IXL Liver Paste; Enchiladas and Tamales; Pate de Foie Gras; R&R Baked Chicken; Heinz Mince Meat and Plum Pudding; Libby's Mince Meat; R&R Plum Pudding; Olives; Chow-Chow; Relishes; Condiments; National Biscuit Co. Crackers and Cakes; Pickles.

In the Tobacco Section

CIGARS: Americas, Alhambra, Burns, Caswell Club, Champagne, Chancellor, El Camino Real, El Danto, El Palencia, El Tovar, Jean Valjean, La Corregidora, La Insular, Optimo, Owl, Vamp, Van Camp, "J.D.", Van Dyke, Vega del Rey.

CIGARETTES: Camel, Caporal, Captain, Chesterfield, Fatima, Herbert, Tareyton, Home Run, La Marquise, Lucky Strike, Melachroino, Milo Violets, Murad, Old Mill, Omar, One Eleven, Pall Mall, Phillip Morris, Richmond, Straight Cut, Three Castle.

SMOKING TOBACCO: Blue Boar, Cross Cut, Craven Mixture, Curve Cut, Dukes Mixture, Durham, Edgeworth, Five Brothers, Good Smoke, Herbert Tareyton, Imperial Cube Cut, E. C. C. Mixture, John Cotton, Prince Albert, Red Indian, Tuxedo, Union Leader, U. S. Marine, Velvet Pipes, Pouches, Cigar and Cigarette Holders, Cigarette Cases.

(Continued next week)

Imperial Candy Co. Goods Fresh from the Factory

CHOCOLATES In Decorated and Fancy Boxes

Sweet Meat, Milk, Opera, Smart Set, La Supreme, Brazil Nut, Glace Nut, Black and White, Societe Girl, Fruit and Nut, Scenic, Mountain, Imperial Red, Imperial Girl, Caramel Nougat, Swiss Milk, La Rose, Cheving, Milk and Vanilla, Chocolate Cherries, Algonquin, True Fruit.

ASSORTED In Sanitary Packages

Little Jacks, Fairy Mints, Sunbeam Kisses, Rainbow Kisses, Sunshine Drops, Fruit Tablets, Opera Stick, Rainbow Mixed, Satin Finished Mixed, Imperial Marshmallows, After Dinner Mints.

NUTS

Almonds, Walnuts, Brazil, Filberts, Hazel and Pecans

Assorted in Bulk

Glassies, Sanded Lemon Drops, Assorted Cuts, Belmont Raspberries, Midget Mixed, Spiced Jelly Hearts, Burnt Peanuts, Monster Gum Drops, Boston Baked Beans, Spiced Jelly Drops, Peanut Brittle, Satin Finished Mixed, Cinnamon Balls, Peanut Squares, White Caps, Walnut Top Chocolates, Almond Top Chocolates, Tugaling Chocolates, Turkish Paste, Vanilla Chocolates, Walnut Nougatine, Dusty Rhodes Chocolates, Milk Dip Crisp Chocolates, Honey Nougat Chocolates, Latgray Marshmallow Chocolates.

Special in Bulk at TWENTY CENTS per Pound

20c JUMBO JELLY BEANS, PLAIN MIXED 20c A. B. GUM DROPS, GROCERS MIXED

Drinkable Things, Too, for the Table

Appleju, Budweiser Beverage, Wieland Beverage, "Bevo" Beverage, "Pablo" Beverage, Diamond "A" Cider, Martini Cider, Mott's Cider, Macomb's Apple Juice, Creme de Menthe, Cider and Manhattan Non Alcoholic Cocktails, Chiquet Club Ginger Ale, Root Beer, Birch Beer, Sarsaparilla; A-B Ginger Ale, White Rock Ginger Ale and Water, Welch's Grape Juice, "Phex" Loganberry Juice, Pinetart, Sunnash Orange Juice, Cocoa, Chocolate, Coffee, Tea.

IN THE SHOE DEPARTMENT New Lines of Men's, Women's and Children's Shoes Just Received

In the Hardware Department

"UNIVERSAL" PEARL HANDLE Cake Knives, Cold Meat Forks, Berry Spoons, Salad Forks, Salad Sets, Sugar Shells, Cheese Servers, Butter Knives, Knives and Forks; "UNIVERSAL" Perculators, Casseroles, Ramequins, Trays, Beverage Shakers, Vacuum Bottles, Beef Carvers, Game Carvers, Bird Carvers, Knives and Forks; "PYREX" Casseroles, Pie Plates, Bread Pans, Utility Dishes, Cake Dishes, Baking Glasses, Ramekins; CUT SUNBURST & CORNET PATTERN Wine Glasses, Cocktail Glasses, Grape Juice Glasses, Tumblers, Fruit Sauces, Berry Bowls, Nappies, Water Jugs, Sundae Glasses, Sugars and Creams, Water Sets; Special Ivory and Polychrome Electric Lamps; 26 Piece Table Sets; Glass Candle Sticks; Vases; Glass Ware; Crockery; SPECIAL MT. VERNON WHITE WARE in 51 Piece Dinner Sets at \$12.50, 100 Piece Sets at \$21.50 or by the Single Article; Straight Razors, Safety Razors; Pocket and Hunting Knives; Hunting Axes; Aluminum Ware; ELECTRIC Curling Irons, Chaffing Dishes, Toasters, Irons No. 3 and No. 6, Water Heaters, Tea Kettles, Grills, Heating Pads, Plates, Waffle Irons; Manicure Sets, Scissor Sets, Flashlights, Flash Light Lanterns, Victrolas and Records, Pocket Watches, Wrist Watches, Watch Chains, Pobs, Ornamental Clocks, Carpenter Tools, Baseballs and Bats, Indoor Balls and Bats, Volley Balls, Trunks, Suit Cases, Traveling Bags, Fish Cans, Dining Chairs, Straight Chairs, Arm Rockers, Sewing Rockers, Dining Tables, Card Tables, Stands, Chiffoniers, Dressers.

In the Dry Goods Department

Fancy Handkerchiefs, Linen Handkerchiefs, Silk Handkerchiefs, Lace and Embroidered Handkerchiefs, Sweaters, Wraps, Waists, Dresses, Linen, Silk Hose, Fancy Ribbons, Scarfs, Wool Coats, Rugs, Curtains, Imported Laces and Embroideries, Dress Goods, Dress Patterns, Perfumes, Toilet Preparations, Scented Soaps, Face Powders, Cuticle Sets, Face Creams, Combs, Hair Ornaments, Jewelry; CHILD'S Knit Sets, Booties, Toques, Jazz Caps, Rompers, Suits, Bonnets, Spreads, Blankets, Robes, Sweaters, Coats, Wash Suits, Dresses, Napkins, Table Cloths, Table Damask, Cpt Glass, Jardinieres; KOA Ash Trays, Blotter Pads, Book Racks, Calabashes, Cribbage Boards, Card Boxes, Coasters, Crumb Trays, Darners, Egg Cups, Glove Boxes, Handkerchief Boxes, Jewel Boxes, Napkin Rings, Necktie Holders, Paper Weight, Pin Trays, Pipe Racks, Imported Perfumery, Pottery, CLARIDGE SHOP Handpainted China, Smoking Sets, and Stands; METAL Ash Trays, Books Ends, Fern Dishes; LANDISUN Souvenirs, Calendars, Greeting Cards and Novelties; Wash Ties, Windsor Ties, Four-in-Hand Ties, Belts and Buckles, Golf Shirts, Sport Shirts, Negligee Shirts, Army and Navy Wooden Shirts, Pajamas, Socks, Garters, Suspenders; Panama, Straw and Felt Hats; Caps, Soft and Laundered Collars, Boys' Shirts, Sweater Coats, Knit Jackets, Worsted Jerseys, Bathing suits for Men, Women and Children, Men's Handkerchiefs, Cuff Buttons, Cuff Links, Stick-pins, Finger Rings, Collar Buttons, Collar Pins, Ukuleles, Guitars and Violins.

In the Japanese Department

Silk Embroidered Kimonos for Ladies and Children; Silk Embroidered Jackets; Silk Baby Quilts; Cushion Covers; Crepe Kimonos for Ladies and Children; Silk Crepe; Cotton Crepe; Challis; Kimono Goods; Obi's; Fancy Slippers; Lacquered Handkerchief and Glove Boxes; Sewing Boxes; Jewel Boxes; Silk Lined Basket Bags; Embroidered Handbags; Leather Handbags; Lacquered Trays; Flower Pots; Flower Vases; Framed Pictures; Waste Baskets; Mirror Stands; Parasols; Pin Cushions; Ivory Brooches; Ivory Necklaces; Pearl Necklaces; Glass Necklaces; Ivory Ornaments; Fans; Lamp Shades; Sewing Baskets; Place Cards; Name Cards; Table and Stand Covers; Dressed Dolls; Silk Scarfs; Silk Handkerchiefs; Ivory Cigar and Cigarette Holders; Ash Trays; Match Holders; Paperettes and Correspondence Cards; Local View Postcards; Writing Paper and Envelopes; Albums; Fountain Pens; Eversharp Pencils; Pencil Boxes; Desk Calendars.

The University Extension Letter

AUTOMATIC WATERING DEVICES FOR POULTRY

There is no more single factor in poultry raising than that of providing a constant supply of fresh water for the fowls at all stages of their development from chickhood to maturity. To fill a water vessel from a hydrant periodically once or several times a day is time consuming and usually ineffective. To let water drip from the hydrant continually is unsanitary. The ideal method of watering fowl, especially large flocks, is to install an automatic watering system. E. C. Moore, the progressive Maui poultryman, has called our attention to the "Automatic Water Boy," a modern watering device which he has recently installed in his new 100 foot poultry house at Haiku. Two other types, the Perfection and the Automatic, have been in use at the university poultry division during the past year, and this division would commend to Hawaii poultrymen generally consideration of these two efficient, labor saving watering devices.—F. G. K.

A MARKET FOR TARO

Consumption of taro (it is called dasheen in Florida) in America is said to be steadily increasing. The dasheen is very similar to our Japanese taro and was introduced into Florida and other southern states a few years ago to be tried out as a new crop for American markets. Since its introduction it has been rather actively pushed thru publicity channels as a very desirable addition to the American vegetable diet. It does not take the place of potatoes, for the latter are usually cheaper, but it is claimed that for several purposes the new root crop is increasingly in demand. There may be a chance for developing an export business in Japanese taro from Hawaii.

CUTTING THE COST OF IRRIGATION

How a saving of over 1400 per cent in labor cost of irrigating sugar cane lands has been effected on Kauai was described by R. M. Allen at a recent meeting of the course at the University. A cane field of 23 acres for a year by using 29 man-days of labor, whereas the labor required for the same job by the common method of irrigation was 40 man-days for the year—11 times as much. No more water is quired by the new system and other costs are not much greater. This means an immense cut in the total costs of irrigation which is a considerable item on many plantations in the expense of producing sugar. One man alone by the new system can attend to the irrigation of 10 to 15 acres, while the system in common use requires one man to each acre (sometimes more). The new system requires a different type of planting, arranging the rows according to the contour of the land so that there is no steep rows down the rows. Irregular land is difficult to irrigate by the new system. Between each sugar cane row or line, which is usually about 300 feet long, a furrow is made and a small stream of water is run until it reaches the lower end of the land. At the lower end the excess water that runs off is caught in a ditch and used again. About 25 to 40 lines can be irrigated at once by this system, the whole operation being attended by one man.

The main ditch from which all these 25 to 40 lines are fed runs at right angles to the rows and must be nearly or quite level. Small wooden or galvanized iron tubes lead out of this main ditch, one to each line. The main ditch must be dammed at certain intervals to make the water flow out into the small pipes into the furrows. Cultivation of the ground after irrigation conserves a good deal of the water by preventing evaporation.

EXACT INFORMATION ON SMALL FARMING

Shipping records are being tabulated and studied by the University extension service with the Hawaiian Homes Commission co-operating, to see how much miscellaneous farm produce comes into Honolulu from the other islands. These records will be published in the Extension Letter when we have carried the work far enough to warrant publicity.

EXTENSION LECTURES BY RADIO

The radiophone in Hawaii is proving very beneficial and practical and its benefits are easily available in all sections of the territory because the twopower full broadcasting stations are pushing the work with so much zeal. We have sometimes thought that some communities in the rural districts do not sufficiently realize the great opportunity awaiting them in this instrument of entertainment and education. Why not have a good Magnavox receiving set in the rural school houses and at every plantation center, where the people from the surrounding areas could gather for a free entertainment at frequent intervals?

If it is desired, we would be glad to arrange lectures at stated intervals on various subjects to be given not only by the university folks but by others as well. Some of these might be agricultural subjects as presented at the special short course given at the University, others on current events, literature, etc. Plantation lunas and home stead groups

THE PROBLEM OF VARIABLE FACTORS IN SUGAR PRODUCTION

The sugar planter's experiment station under the direction of Mr. Agoo has been conducting a most important series of experiments designed to determine the most profitable type of cultivation for sugar cane lands with certain climatic conditions. The experiments are important not only because of their practical relation to the continued success of sugar production in Hawaii but also because of their relation to scientific investigation in agriculture generally.

The logic of agricultural research becomes complex as the number of factors of sugar production is subject to the experimental control, becomes numerous. Because which sugar cane is produced, the controllable factors are more than ordinarily numerous. The amount of water used is subject to control because irrigation is practiced. The amount of various fertilizers used is subject to control because the supply of the crop is so great that fertilizers may be brought economically from great distances. Even fixed capital like irrigation equipment is not necessarily fixed in relation to a given area since the available water can be used on a larger or smaller number of acres. Perhaps the supply of labor is less easily controlled, but even that becomes variable according as the number of acres under cultivation is able to respond quickly to plantation policy in the matter of the strength of the owners. Even the supply of managerial ability can be increased or diminished with more than ordinary ease since the cultivation of the crop is so great that under the direction of employed managers and managerial experts and assistants. Even the time devoted to the production of a crop is subject to control since there is no frost to terminate the growing period. And, finally, there is complete freedom so far as other crops are concerned, since it is a sole crop and not a crop in a rotation system subject to the control of that system.

Because of the large number of free variables and because of the time required to complete an experiment with a crop which requires two years to mature, much time has been required and will be required to complete the work. The results achieved by more than ten years work indicate that on land where the soil conditions and climatic conditions, it would be possible to increase the crop very greatly and at a profit by a more intensive cultivation—a more intensive cultivation representing a technical advance to consist in the application of the various agents, land, water, fertilizer, labor in planting and cultivation, labor in harvesting and managerial labor in better proportions. It is much to be desired that the results be tested under the conditions of large plantation production.—Romanzo Adams.

BALDWIN'S SELL LANAI TO HAWAIIAN PINES CO.

The Hawaiian Pineapple Co., which had an option on the island of Lanai, purchased the island from the Baldwin interests for a cash consideration of \$1,100,000, according to a cable received from James D. Dole, president of the company who is now in San Francisco.

The purchased land comprises an area of 130 square miles. The purchase also includes all livestock, buildings and equipment of the Lanai Co.'s ranch. Pineapples will not be planted until about three or four years, the company in the mean time centralizing its efforts towards cultivating the newly acquired lands of the Waiwala Agricultural Co. The docks and transportation facilities have to be looked after before the company will begin operation on the island.

Lihue Store

Kauai's Emporium

Hanamaulu Store

OUR MEAT MARKET is in receipt of ICE HOUSE GOODS

By every arrival of the S.S. Hyades at Port Allen